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ABSTRACT

This publication reports an Oregon project to organize workshops to enable interested people to learn about the full range of benefits and requirements of a state career information system and to initiate the local developmental process if they decide to proceed. Chapter 1 addresses the need for Career Information Workshops and workshop development. Chapter 2 overviews the workshop program, including site solicitation (process, workshop site selection), local planning activities (physical arrangements, participant invitation process), attendance, workshop agenda (a sample agenda with explanatory notes and participant evaluations is provided), workshop evaluation, and workshop followup (steering committee, followup assistance). Impact of the workshops and followup are also briefly discussed. Chapter 3 makes some observations about the role of seven influences in shaping the project and determining its outcome. These are (1) technical characteristics of career information systems, (2) uncertainties of federal assistance and aggressive commercial marketing of delivery systems, (3) quality of workshop materials, (4) abilities of workshop presenters, (5) developmental evaluation strategy that produced improvements even during the project, (6) followup technical assistance made possible by the grant, and (7) key role played by workshop site coordinators and local leaders. The evaluation form is appended. (YLB)

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CAREER INFORMATION WORKSHOPS
1978 - 79

BRUCE MCKINLAY

JANUARY, 1981

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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I. INTRODUCTION

The Need for Career Information Workshops

People making career decisions need accurate, relevant information about occupations and education. To make that information available, someone has to analyze raw data and interpret it for individuals, manage information delivery systems, and train counselors to use the information effectively.

Since 1972 the Career Information System has been developing a program that provides these services for a state. With support from the Employment and Training Administration, Fund for the Improvement of Post-secondary Education, and system users, the Career Information System has created a cooperative program to localize occupational and educational information, to store it in computer files, and to make it accessible in schools and social agencies through computer terminals or needle-sort card decks. This program includes local information analysis, user-operable delivery systems, annual counselor training, and a cooperative organizational structure.[1]

Several recent developments have produced a surge of interest in state-based career information systems. These developments include the success of the state-based approach in Oregon and several other states, the acceptance of computers as information delivery devices, the spread of career services, and the growing emphasis on quality information in educational decisions.

The process of implementing and operating a statewide system of career information, however, is much more complex than teaching a guidance concept or loading a computer tape. People interested in initiating

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[1] For a description of computer-based systems for career information as they are being implemented in several states, see ACSCI Clearinghouse, Computer-Based Systems for Career Information (Eugene, Oregon: University of Oregon, 1979), and Bruce McKinlay, "Systematic Delivery of Career Information," Improving Educational Information Services, ed. Robert Wise (San Francisco: Jossey-Bass, 1979).

state information systems need to (1) understand the various requirements of such a system; (2) identify local resources and support for a system; and (3) create a state organization that can begin making decisions that will lead to a permanent, high-quality service. The idea behind the Career Information Workshops is essentially two-fold: to enable interested people in a state to learn about the full range of benefits and requirements of a system, and to initiate the local developmental process if they decide to proceed.

Why Oregon?

There are several reasons why the Oregon Career Information System was a logical choice to organize the Career Information Workshops. First, Oregon CIS was the first state-based system to use computer delivery for career information. Though there are other computer programs for career information delivery, it was the Oregon CIS that originated the prevailing information analysis methodologies, counselor training techniques, and the state consortium approach to organization.

Because Oregon CIS initiated much of the state model for career information systems, it had been involved in virtually all of the state-level dissemination that had occurred. When the Department of Labor funded states to implement systems for career information in 1975, Oregon CIS provided technical assistance and training to those eight states, making dozens of individual site visits to augment the efforts of the Department of Labor's new Division of Career Information Services. In 1976, the American Personnel and Guidance Association and Oregon CIS conducted a series of seven introductory workshops for counselors on the features of and implementation procedures for statewide career information systems. Subsequently, many states obtained assistance from Oregon. That assistance ranged from general information to detailed assistance in various phases of system installation. Thus, Oregon CIS not only had experience developing the state-based system, but it also had experience helping others to implement it.

When the Fund for the Improvement of Post-Secondary Education (FIPSE) and the National Occupational Information Coordinating Committee (NOICC) decided to support this Career Information Workshop series, federal implementation grants were not available. The Division of Career Information

Services' plan to provide a second round of state implementation funds was stalled, and NOICC was not yet funding systems of career information. All the activities in the field were being initiated locally. This situation created heavy demands on Oregon CIS. Without financial assistance, it is difficult for an operating program to provide effective technical assistance while maintaining local services. FIPSE and NOICC support during 1978 and 1979 enabled Oregon CIS to synthesize and build upon the previous technical assistance experiences and to meet the urgent needs and promising opportunities in several states where local initiative was evident.

Workshop Development

Previous technical assistance efforts had revealed several recurring needs which the workshop project was designed to address. Many people, both counselors and administrators, had heard of computer-based systems for career information, but had never seen one. In order to overcome both negative and positive stereotypes about computers in guidance, those people needed an opportunity to use a system themselves and to learn how such systems fit into educational and social service programs.

The computer programs that deliver information are the flashiest components of a system, and some are marketed commercially. People needed to learn about the other three less dramatic, but more important components of a successful system: accurate local information, user services, and an organizational structure that supports high quality local service.

The leadership in such a diverse field as career development is not necessarily provided by people in official state positions. Without the requirements of federal legislation or the inducements of large federal grants, the natural local leadership for a career information system needed an occasion to emerge and coalesce.

All the questions do not get answered during a two-day workshop. People needed follow-up suppport and assistance to help them carry through on the decisions they made as a group.

The workshop project--from solicitation to follow-up--was carried out in a way that was calculated to address all of these needs.

II. THE WORKSHOP PROGRAM IN BRIEF

Under this Career Information Workshop project, interested people throughout the country were invited to apply for workshops, and six states where the prospects of broad-based action looked best were selected. The designated local sponsors invited a wide cross-section of administrators and practitioners to one-and-a-half day workshops conducted by experienced CIS staff. Workshop participants examined career information systems from both users' and operators' perspectives, using materials and activities that were prepared specifically for the purpose. The workshop agenda and materials were revised in response to evaluations by participants in the early workshops. Most workshops produced at least the nucleus of a steering committee that met with the CIS consultants following the workshop to plan local action. The principal CIS workshop presenter was available to provide follow-up consultation to the steering committee during its first several months of planning.

The overall workshop program, then, consisted of a broad solicitation process; local planning activities, including identification of sponsors and participants; the workshop itself; and technical assistance. Those components of the program are described in the following sections.

Site Solicitation

The process. The original project plan was to make workshops available in states as local conditions indicated during the two years of the project. Instead, a formal solicitation process was carried out. In order to give as many interested groups as possible an opportunity to apply for a workshop, solicitations were distributed to likely leaders in all relevant states and territories, excluding only the nine states that had previously received Labor Department grants for system implementation.

Some individuals were informed by virtue of their positions. These

included:

- Chief State School Officers
- State Education Department's Guidance, Counseling, and Testing Coordinators and Directors
- Chiefs of Research and Analysis in State Employment Security Agencies
- American Personnel and Guidance Association (APGA) State Branch Presidents
- State Occupational Information Coordinating Committee (SOICC) Directors
- State Educational Information Center (EIC) Coordinators

In addition, information about the workshops was sent to approximately 200 other individuals who had shown unsolicited interest in career information systems. These individuals were identified by the Division of Career Information Services (DCIS), the Association of Computer-Based Systems for Career Information (ACSCI), and the CIS technical assistance staff.

Approximately 800 individuals in 41 states and 4 territories received workshop solicitation packets containing a letter, application, and brochure. Recipients were also given lists of others in their states who received solicitations and were asked to coordinate their application with those individuals. The application asked for a workshop proposal demonstrating the following requirements:

1. adequate facilities
2. broad attendance by practitioners in both education and employment programs
3. a commitment by key individuals to pursue establishment of a statewide career information system in the state

Selection of workshop sites. The resulting proposals were reviewed by a Project Resource Group consisting of representatives from the Fund for the Improvement of Postsecondary Education, the Employment and Training Administration, the Bureau of Labor Statistics, National Occupational Information Coordinating Committee, and Oregon Career Information System. That group met in November 1978 in Washington, D.C., and selected the six sites shown in Table 1 for workshops.

TABLE 1

INITIAL WORKSHOP SITES

State	Local Sponsors
Hawaii	Hawaii SOICC; Hawaii Department of Education; Hawaii Department of Labor and Industrial Relations; University of Hawaii; Community Colleges; EIC
Texas	Texas SOICC; Southwest Texas State University
Kansas	Kansas State Department of Education; Southwestern Bell Telephone Company
New York	New York Education Department; Career Information System of the New York City Board of Education
Maryland	Maryland Department of Education; State Board for Higher Education; State Manpower Planning Office; Maryland Rehabilitation Center
Delaware	Delaware SOICC; Delaware EIC

Kansas, Maryland and Delaware were selected contingent on their submission of fuller proposals that would indicate a broad base of support for the workshops. All three groups subsequently satisfied those contingencies, and workshops were scheduled for all six states.

Before the Delaware workshop could be presented, however, things changed. Believing they were to receive a state implementation grant, the sponsors postponed the workshop, intending to reschedule it when their system was ready for use. The Delaware workshop was therefore given to the next runner-up state, Illinois. Local sponsors of the Illinois workshop were: Illinois Bureau of Employment Security, the Illinois Office of Education, and the Educational Information Centers Program.

Additional states. Partly as a result of the original solicitation but after some successful workshops had been held, serious interest arose in several additional states. Three supported workshops with local funds:

Georgia, Idaho, and Washington, D.C.

Georgia used funds from a counselor continuing education grant through Georgia State University to host a workshop in February 1979. This workshop used much of the project workshop format and combined it with information on developments within the Georgia Career Information System, which received partial start-up funding the following June.

Idaho SOICC sponsored a full statewide workshop in March 1979 as part of a plan to develop a statewide CIS. Idaho has since been awarded some EIC funding (of which Idaho officials were unaware previous to the workshop) for implementation.

The District of Columbia SOICC sponsored a workshop in August 1979 that was attended by a wide cross-section of the District's educational and employment personnel and led to the formation of an active steering committee.

In these three additional sites, the marginal costs for travel, printing, and staff time were borne locally rather than by the project. However, the workshops were possible only because the project underwrote the initial development of coherent, general purpose materials and operational plans for such activities. In that sense, these additional workshops can be considered an outcome of the project and evidence of the adaptability of project materials to diverse situations.

Local Planning Activities

Each state chose a workshop site and designated a person to serve as state site coordinator. The coordinator's main tasks were: (1) to oversee the physical arrangements for the workshop, (2) to invite key people to attend, and (3) to select the delivery system to be demonstrated at the workshop.

Physical arrangements. Because of the detailed directions provided by CIS and frequent checkpoints between the local coordinator and the principal workshop consultant, the first task was relatively clear-cut. Besides arranging for adequate facilities and equipment for the workshop, the coordinator also distributed a brochure advertising the workshop and worked with the CIS consultant to set a date for the workshop. The CIS consultant provided the site coordinator a copy of a master brochure that could be reproduced and used as part of the invitation to various

individuals. The brochure defined the concept of career information systems, explained how they work, whom they serve, advantages of such a system, and topics the workshop would cover. Space was left for the site coordinators to add information concerning their state's workshop.

The CIS consultant also worked with the site coordinator to schedule a date for the workshop which would insure maximum attendance. The workshop had to be arranged for dates which would not conflict with local and state meetings and events or with local holidays (e.g., Martin Luther King Day in New York).

The invitation process. The task of inviting participants is more complicated and crucial to the eventual development of a state-based system. This responsibility is necessarily handled locally because people who live and work in a state understand the agencies, personnel, and politics of their locale. While accommodating local needs, it was necessary to stress the variety of people who should be invited. Few sponsors, left to their own devices, would invite the range of people who can benefit from a system for career information and provide the commitment and user base essential to the success of both the workshop and future system planning efforts. For this reason, the initial application indicated all groups that should definitely be invited to the workshop, as shown by the following excerpt.

> *VI. PARTICIPANTS (Please make a commitment to contact the following agencies and groups and strongly encourage their attendance. In addition, a list of names and titles of the representatives listed below who will be attending should be forwarded as soon as it is completed. In your initial application include a partial list of participants to demonstrate the interest and participation of appropriate persons.)*
>
> *A. Potential user groups (Discuss methods to be used to invite these groups.)*
>
> *1. Staff of existing brokering agencies*
> *2. Secondary school counselors*
> *3. Community college, vocational/technical school and four year college counselors*
> *4. Career education coordinators*
> *5. Employment counselors (e.g., vocational rehabilitation, employment service, CETA, corrections)*
> *6. Representatives of business and labor*
> *7. Other user groups as determined by your selection*

B. *Potential sponsors* *(Identify representatives by name and title.)*

1. *State Occupational Information Coordinating Committee*
2. *Director of Vocational and/or Career Education, State Department of Education*
3. *Director of Guidance, State Department of Education*
4. *Chief of Employment Security Research and Analysis Division*
5. *Educational Information Center Planning Authority*
6. *Others as determined by your selection*

Attendance

Attendance at workshops averaged 55 participants. The audiences were mostly quite diverse, with administrators, counselors, instructors, specialists, and other staff from the following agencies and groups participating:

- State Department of Education
- State Department of Labor
- State Occupational Information Coordinating Committee
- CETA
- Education Information Centers
- Secondary Schools
- Junior Colleges
- Community Colleges
- 4-year Colleges and Universities
- Private Schools
- Department of Vocational Rehabilitation
- Social Service Agencies

Despite the emphasis and assistance provided by CIS, a few workshops were not as broadly representative of users or key administrators as was needed. This situation developed when site coordinators invited only those groups with which they ordinarily work. Those workshops were rated lower by participants and produced less fruitful steering committees. One workshop had a large number of librarians (one-third of the total attendance) and few counselors. In evaluating the relevance of the workshop, 19 percent of the people at this particular workshop responded negatively, while the other, more representative workshops averaged only a 4 percent negative response.

The Workshop Agenda

It was not easy to develop an agenda that would be interesting and general enough to inform everyone and at the same time answer the more technical questions of diverse professionals and administrators. Considerable staff discussion about the essential ingredients for the workshop yielded six workshop objectives.

1. To define a career information system (its characteristics and components)
2. To provide experience with an operating system of career information (computer and manual delivery systems)
3. To demonstrate how career information enriches counseling and instruction (in schools, social agencies, and colleges)
4. To identify requirements for implementing a system (organization and staffing, financing, and policy-making board of directors)
5. To select a steering committee to study the feasibility of a system for the state, set up an organizational structure, and stimulate decisions
6. To begin identifying local resources (leadership, data sources, computer networks, existing coordinators, and funds)

Workshop activities were organized around these six objectives. Because states had the option of adding local presentations to the workshop, the agenda varied slightly from state to state, but the core activities remained constant.

Sample agenda. A typical workshop agenda follows with explanatory notes and participant evaluations.

First Day

8:30 - 9:00 Registration and Coffee

9:00 - 9:20 Welcome, Overview of workshop

After registration and coffee on the first morning of the workshop, the site coordinator welcomed participants. The CIS presenters gave an overview of the workshop and its objectives.

In evaluating the workshop after its completion, participants were asked to respond to the statement "It was clear to me from the beginning of the presentation what the objectives were." Eighty-one percent of those completing evaluation forms responded positively, 11 percent

neutrally, and 8 percent negatively.

9:20 - 10:45 What is a System of Career Information?

The presenters explained the characteristics and components of a successful career information system, using transparencies and the Department of Labor videotape, "Where Do I Go from Here?" This introduction familiarized people with the concept of a system for career information, preparing them for the more specific activities that followed.

At the end of the workshop, 98 percent agreed with the evaluative statement, "The workshop provided me with an understanding of the components of a career information system." The other 2 percent had a neutral response; none responded negatively.

10:45 - 11:00 Break

11:00 - 12:00 Hands-on Experience with a Computer System - Group A
Hands-on Experience with a Manual System - Group B

12:00 - 1:30 Lunch

1:30 - 2:30 Hands-on Experience with a Computer System - Group B
Hands-on Experience with a Manual System - Group A

During the late morning and early afternoon, individual participants used both the computerized and the manual card sort versions of an operating system for career information. (All local sponsors chose the Career Information System as one system for this demonstration; some workshops had other delivery systems available as well.) For this activity, participants divided into two groups. Individuals in one group used the computerized version while the other group did several activities using the card sort version with the information books. After lunch, the two groups changed rooms and tasks. Working with an operational system served as a strong motivator, allowing participants to see for themselves the possibilities for uses of a localized system of career information.

The presenters stressed that the intent was not to impress the participants with computer technology or sell them a particular delivery system, but to show them that such a system can make labor market and educational data readable and usable for a wide range of people.

In the evaluation, 91 percent responded positively to the statement, "The workshop allowed me a useful experience with both the manual and computer systems for the delivery of career information." Many volunteered in response to an open-ended question that the session was the most valuable. Neutral evaluations comprised 4 percent of the total, and negative evaluations were 3 percent. (One of the workshops had computer hookup problems and a physical arrangement whereby the terminals were located in two separate rooms, and all but one of these negative ratings came from that workshop.)

2:30 - 3:30 Integrating a CIS into Counseling and Instructional Programs

The session that followed the individual uses of the system discussed ways systems for career information are integrated into diverse agency and school settings. The presenters drew upon the experience in several states to illustrate the wide range of audiences using such systems.

Comparatively, this session drew the lowest evaluative ratings. Even so, those who were not satisfied were more neutral than negative. To the statement, "The workshop demonstrated the application of a career information system in instructional settings," 50 percent responded positively, 33 percent neutrally, and 9 percent negatively. To the statement, "The workshop demonstrated the application of a career information system in counseling settings," 70 percent responded positively, 20 percent neutrally, and 6 percent negatively.

The workshop approach to this topic was changed several times. In some workshops role playing of a client- and student-directed activities was led by presenters; in other workshops a general overview of the topic was given; while in others specific examples were used. Despite these alterations, evaluation ratings on these items remained comparatively low. This session may need even more work, or one might conclude that it is futile to describe diverse applications of a system without being able to see the sites or talk to the students or clients receiving the service. Perhaps the evaluation questions elicit particularly critical responses. This discussion was the last major activity of a very full

day of the workshop and participants were tired. Whatever the reason, this activity received consistently lower marks than the other parts of the workshop with only two out of three participants giving it positive ratings.

3:30 - 4:00 Review and Questions
4:00 - 4:15 Wrap-up

During the last session of the first day, the topics discussed throughout the day were summarized briefly. The presenters asked for questions from the participants to be answered during the second day's session. This process helped the presenters be certain the expectations of the participants were being met.

Second Day
9:00 Agenda and Review of First Day's Activities
9:15 - 12:00 Decisions for Implementation of a System
9:15 - 10:00 (1) Organizing and Staffing a Career Information System
10:00 - 11:00 (2) Prospective Funding Sources for Implementation

On the second day, the workshop emphasis shifted. Whereas the first day provided a user's perspective of the system, the second day dealt with the internal operations of a functional system. Organization and staffing were explained and financing was discussed from start-up funding through operating revenue.

Organization and finance are generally less exciting topics than products and services. Even so, the ratings for this second morning were not as high during the early workshops as the presenters had wished, considering the importance of the topics to the future of a new system. New techniques were again attempted. Large group or small group sessions seemed to make no difference. Finally, the visual aids were completely revised and the explanations reworked. The evaluations from the two remaining workshops were higher.

Of the participants in all the workshops, 75 percent responded positively to the statement, "I now understand the organization and staffing

requirements for implementing a career information system," 20 percent responded neutrally, and 5 percent negatively. To the statement, "I now understand the major staff roles required to operate a career information system," 70 percent responded positively, 20 percent neutrally, and 7 percent negatively.

11:00 - 12:00 (3) Identifying Local Resources

The final workshop activity involved choosing a Steering Committee and identifying possible local resources in the form of leadership, data sources, computer networks, existing coordinators, and funds. For these discussions, the participants divided into affinity groups. Discussions now focused on the workshop state's possibilities of implementing a system and began to rely more heavily on local leadership. People were given opportunities to speak with others who shared their interests and to begin working with them to discuss the feasibility of cooperative system implementation. At the end of the session, the groups chose respresentatives for a Steering Committee to carry on the effort after the workshop.

To the statement, "I now understand the role of the Steering Committee or Board in implementing a career information system," 64 percent responded positively, 24 percent neutrally, and 10 percent negatively.

The workshop itself closed following the selection of steering committee members, while the committee made arrangements to meet following lunch.

Overall Workshop Evaluation

Two evaluation questions were designed to assess the workshop as a whole. To the statement, "The presentations were appropriate for the level of knowledge of the audience," 91 percent responded positively, 7 percent neutrally, and 2 percent negatively. The other statement, "The presentation was relevant to my needs," received a positive response from 69 percent of the respondents, 22 percent responded neutrally, and 6 percent negatively. In addition, the evaluation of the final workshop had the following statement: "I learned most of the things I wanted to learn." Responses were 92 percent positive, 4 percent neutral, and 4 percent negative, indicating that participants were learning, but some were not

able to apply their knowledge immediately to the needs of their work.

The evaluation questionnaire also contained open-ended questions, which reveal participants' reaction to the workshop. The first open-ended question asked the participants to "identify the most positive aspects of the workshop." Comments fell into the categories listed in Table 2.

TABLE 2

THE MOST POSITIVE ASPECTS OF THE WORKSHOP

Category of Comments	Percent of Total Respondents
Enthusiastic, knowledgeable presenters	25%
Useful, pleasurable hands-on experience	23
Well organized presentation with useful information	19
Useful materials	5
Other positive comments	5
No comments about positive aspects	27

As Table 3 illustrates, comments concerning the weakest aspects of the workshop were more diverse and varied greatly with the individual workshop.

From the ratings of the sessions individually and the workshop as a whole, it seems that the participants liked the workshops. They rated them highly, and volunteered statements of satisfaction with the proceedings.

The workshops' other major objective was to enable people to decide whether to pursue development of a system for their state. For that reason, the evaluative statement, "I would support the establishment of a statewide career information system for my state," is a real test of the workshop's effectiveness. Of those who evaluated the workshops, 84 percent replied that they support a system for their state, 11 percent responded neutrally, and only 2 percent were opposed. All of the negative

TABLE 3

THE WEAKEST ASPECTS OF THE WORKSHOP

Category of Comments	Percent of Total Respondents
No comments about weaknesses	38%
Comments regarding Organization of Workshop	32%
-Need more small group sessions	[8%]
-Could move faster	[6%]
-Need more time	[5%]
-Need help relating information to the local scene	[4%]
-Other comments regarding workshop organization	[9%]
Comments regarding Content	19%
-Need more information on costs and financing	[6%]
-More information on how to organize a system	[5%]
-More information on how to use the system	[4%]
-Other comments on content	[4%]
Comments on Facilities	11%
-Telephone or terminal problems (from two workshops)	[4%]
-Too few terminals or not enough time	[3%]
-Better publicity	[2%]
-Other comments on facilities	[2%]

conclusions came from the workshop with the poor computer arrangements and small representation of counselors.

Thus, it seems fair to say that the workshops achieved both overall objectives: to inform potential users and supporters about the features, benefits, and requirements of a state-based system for career information, and to enable them to decide whether to support the establishment of a system in the state.

Workshop Follow-Up

Understanding and enthusiasm are necessary at the beginning of any new venture, and the workshops helped generate both. Action, however, also requires leadership and resources.

Experience with prior series of Career Information Workshops had revealed two ways in which an implementation project should assist. First, it should encourage local leaders by helping them organize their work. Secondly, it should help offset the lack of local resources by helping to answer the difficult questions that arise in the early months of such an undertaking.

The Steering Committee. The local leadership identified during each workshop was given an immediate opportunity to become active at the first Steering Committee meeting, which took place immediately following the close of the workshop. The agenda for each of these meetings typically included:

- Introductions
- Responsibilities and structure of the Steering Committee
- Technical assistance available under the FIPSE/NOICC Workshop Project
- Election of officers
- Open discussion of key issues in implementing a system for the state
- Listing of action items and due dates for the Committee
- Scheduling the next Steering Committee meeting
- Setting the agenda for the next technical assistance visit
- Adjournment

The action items that the committees identified included such matters as selection of a delivery system, expansion of the committee to include key agencies not represented at the workshops, a search for grant funding to support implementation, plans for long-range financing, selection of an agency to house the system for the consortium, and efforts to coordinate with related activities such as the Education Information Centers Program and the State Occupational Information Coordinating Committee.

Of the nine states that held workshops, seven formed steering committees. (In the other two, New York and Illinois, the EIC and SOICC staff tried to act as executive committees.) Typical members of the committees were:

- Counselors and administrators from organizations interested in using the system:
  - private colleges
  - public universities
  - community colleges
  - secondary schools
  - vocational rehabilitation agencies
  - State Employment Service agencies
  - CETA Prime Sponsors
- Representatives from organizations interested in supporting the system:
  - state vocational education agencies
  - State Occupational Information Coordinating Committees
  - State Educational Information Centers planning agencies
- State Employment Research and Statistics Units
- Private employers

Although it was not so planned, the individuals who had served as the site coordinators for the workshops were, in every state, elected chairs of the steering committees. The level of commitment and leadership from other committee members varied. Most were willing, cooperative and anxious to see a system installed. Many were willing to make a considerable personal commitment to the work of their committees. In a few instances, some representatives of user groups felt ill-equipped to plan at a statewide level, and there were also a few instances where EIC and SOICC staff concern for protecting their independent authority restricted their effectiveness.

All committees continued to meet in the months following the workshops. Several became strong groups that met frequently throughout the year and made all of the critical decisions for system implementation. Others moved more slowly and assumed essentially advisory roles when the National Occupational Information Coordinating Committee began encouraging their state staffs to take charge of career information delivery efforts.

A factor which probably had much to do with the committees' effectiveness was the political environment within the state in the career information field. Some of the states had little going in the way of career information and provided fertile ground for coalition-building and community organization. Other states were in a grave state of flux with administrative entities--such as the SOICC or EIC--vying for leadership in the career information area, different user groups committed to one or another of the delivery systems available on the market, and a general feeling of "now or never" in relation to the NOICC grants program.

To learn more about the effectiveness of one of the steering committees, a follow-up survey was conducted among the members of the Hawaii Steering Committee (the first one formed). The members attending the third committee meeting reported being satisfied with the committee selection process. They were unanimous in their agreement that the committee had the right people to accomplish its purpose, and they thought the committee's role was clear. They believed they were making satisfactory progress.

Follow-Up Assistance. The work of the Steering Committee and the active state agencies was supported in three ways by the grant. A Guide for Steering Committees was prepared which identified five major policy decisions that need to be made before a system can be fully operational. These key decisions are:

- Long range financing (after implementation grants are finished)
- Permanent organizational structure (to make the system responsive to user needs)
- Delivery system
- Fiscal agent
- Director

Copies of the Guide were given to all steering committee members at the first meeting, and the contents were used by the committee or its sub-committees to begin structuring the local approach to these decisions.

The second kind of follow-up assistance was the availability of one of the workshop presenters to provide guidance to each group by telephone and mail. Many technical and strategic questions arise as a new group begins planning a system, and the group benefits from the advice of an experienced person (that is, someone who has had first-hand operating experience with a state-based system and is aware of the ways such problems are handled in other states). For the first several months following each workshop, there were typically one or more telephone calls a week, and written material was sent about twice a month. The amount of such assistance varied, but it was directly proportional to the amount of progress a state made. The states which made the most progress during the year were those that requested the most assistance.

The third kind of assistance came in the form of personal visits by the consultant to the state to meet a second (and sometimes a third) time with the Steering Committee. These follow-up visits were usually organized around a work session on one of the key questions and included related activities such as presentation to administrators, review of workplans, and discussions of plans and progress. It is the concensus of the project staff and the recipients that follow-up assistance of this sort is extremely beneficial. Certainly it prevented some states from repeating mistakes other states had made. It is generally believed that it shortened the planning period. These are important accomplishments when all resources are being volunteered. Some Steering Committee chairs said this form of assistance was vital, making the difference between success and failure.

Impact of the Workshops and Follow-up

Three questions, when answered, demonstrate the ultimate success of a workshop program:

1. Were the workshops well attended?
2. Did the workshops result in support for the concept on which the program focused?
3. Did positive action result? In this case, were viable Steering Committees formed and operating and did action toward implementation occur?

Obviously, this transition from introduction to implementation requires both time and funds and occurs at different rates in different states. Nevertheless, there has been enough time and enough action in the nine states to judge the effectiveness of the workshop program.

TABLE 4

IMPACT OF THE WORKSHOPS

Steps	# of States	Related Data
Workshops held	9	Number of Participants: Total 493 Range 40 - 80 per workshop Average 55
Participants expressed support for system in their state	9	Percent of Participant Support Per Workshop: Range 71 - 100% Average 87%
Steering Committee formed	7	Number of Committee Members: Range 11 - 14
Made some of the key decisions	8	Of 5 Key Decisions, Number Made During First Year: Range 2 - 5 Average 3.5
State applied for NOICC grant	6	
State received NOICC grant	5	
State began implementation within one year of workshop	4	

Evaluation Summary. The Oregon Career Information System proposed to hold six workshops. Instead there were nine workshops attended by nearly 500 people. Workshop participants rated the workshops highly and, after each workshop, a large majority of the participants (87% average) expressed support for the establishment of a system of career information in their state. To help reach this goal, participants in seven of the states nominated individuals to represent them on a Steering Committee.

The groups not only formed committees, but the committees met and acted on the essential decisions that must be made for effective implementation of a state system. These decisions are described in detail in the Steering Committee Guide which was given to each committee member. Of the nine states, eight made at least one of the these decisions, and four made all of the decisions.

In their search for start-up funds, six of the workshop states submitted proposals seeking NOICC grants. Of these six, five were awarded grants. Within a year after the workshops, four of the nine states had begun implementation.

Conclusion

By most standards the Career Information Workshops were successful. They were conducted as scheduled with minimum disruption to the programs of the sponsoring agencies. They were well attended and received favorable reviews from participants. They produced steering committees, a majority with the leadership and resources to take significant steps toward developing local career information systems.

III. INFLUENCES AFFECTING THE WORKSHOP PROGRAM

The workshop project represents a departure from the conventional federal role in innovation. For this project, FIPSE and NOICC digressed from the federal tradition of supporting primarily research and demonstrations by funding a project whose goal was not innovation, but dissemination. Moreover, these agencies enabled an innovator to do the dissemination rather than commit the federal government to the control and the financial obligation that goes with a centrally directed program. In so doing, they offered an informational rather than a financial carrot to states and localities.

From the perspective of the project operator, seven influences shaped the project and helped determine its outcome. The first two influences were external to the project:

1. The technical characteristics of systems for career information, a resource of growing national interest to a diverse audience of administrators and counselors
2. The uncertainties of the federal assistance program and the aggressive commercial marketing of delivery systems

The remaining influences were part of the project itself:

3. The quality of the materials developed for the workshop participants and steering committee members
4. The abilities of the workshop presenters
5. A developmental evaluation strategy that produced substantial improvements even during the short life of the workshop services
6. The follow-up technical assistance made possible by the grant
7. The key roles played by workshop site coordinators and other local leaders

The relative importance of these influences will not be assessed here. Neither will attempts be made to interpret the experience in the context of innovation dissemination theory nor to derive guidelines for other disseminators or governmental agencies. What follows are simply some observations about the role each of these influences played on this project.

The Characteristics of Career Information Systems

The features, benefits, and requirements of a system for career information are described in the booklet Systems for Career Information which was produced as part of this project. Here we need simply to note three characteristics of systems that were significant to the conduct and outcome of the workshop project.

Systems are innovations. Ten years ago the first computer-based systems for career information were being pilot tested. About five years ago implementation began in earnest. Now systems for career information are not novelties, but neither are they commonplace. They are still new enough to pique the curiosity of professionals and administrators, and their successes have stimulated serious examination by those same groups. In an era of rapidly changing information, growing acceptance of career education, continuing experimentation with employment programs, and recognition of information as a guidance service, there is a substantial audience for a workshop dealing with innovative systems for career information.

Systems have substantial technical components. Many innovations in education and employment programs are concepts or methods which might be conveyed adequately in a short workshop and which may be implemented in a variety of ways by individual professionals or institutions. This, however, is not true for systems for career information. Though the systems are very flexible in their use, implementation involves information analysis methods and computer elements that require both a highly proficient staff and substantial resources. These technical requirements must be understood and met by those planning a system.

Systems have decentralized constituencies. The occupational and educational data delivered by a career information system comes from a variety of sources. Likewise, career information is useful in a very broad range of counseling and instructional programs and for people ranging from adolescents to mature adults. For these reasons, the policies of the implementing organization and the professional orientations of the staff must be broad-based in order to serve their varied constituents and to obtain their financial and programmatic support. At the policy level it is important that agency and school representatives understand how a career information system can improve their own programs, but they must also realize

that they can obtain a higher quality service at a lower cost through cooperative rather than unilateral action. The members of the steering committee need to act in a manner that serves the common good, not merely the interests of their particular agencies.

These three features--the innovative character of career information systems, their substantial technical components, and the decentralized nature of their constitutents--place several requirements on the workshop. Those who conduct the workshops must provide more than introductory information. The workshop must convey at least an appreciation for the technical and financial requirements of a system without intimidating participants. Finally, it must show how diverse and frequently competitive institutions can cooperate to their mutual advantage and stimulate joint action. These are substantial requirements for a two-day workshop.

National Influence

Though the emphasis of this project was on state and local initiatives to meet fundamentally state and local needs, two national developments had the potential to disrupt the program.

The first was the instability of federal activities in this area. Though the Labor Department had set up a grants program to help state and local agencies implement career information systems, they made only one round of grants, in 1975. Consequently, when this project proposal was written in 1978, there were no federal grant funds available specifically for this purpose. The project was designed to assist "bootstrap" operations, several of which were already making considerable progress.

Shortly after the project was funded, the Labor Department's Division of Career Information Services obtained approval for a second round of grants. With that happy prospect ready for announcement, the original project timeline was scrapped and all the workshops were scheduled for the first few months of the grant in order to be as helpful to new states as possible. Shortly after the workshop solicitation began, the U.S. Office of Management and Budget "red-lined" the DCIS program and states were again left looking to their own resources.

Midway through the workshop series, the federal posture changed again with an announcement by the National Occupational Information Coordinating Committee that they would take over the funding of implementation

grants. The NOICC Request for Proposals was actually distributed June 6, 1979, after all but one of the workshops had been completed (that one was paid for by the local sponsor).

The NOICC solicitation was based solidly on the previous work of the Labor Department program, so there was considerable similarity between the two. One of the differences, however, was that NOICC staff emphasized delivery systems and organizational arrangements whereas the Labor Department program had emphasized information development and user services.

The federal attention given to delivery systems exacerbated another national influence on this project, commercial competition. Of the four components of a career information system, one--the delivery system--is marketed commercially. Thus the delivery system, which is the most visible component of a career information system, receives additional attention as a result of aggressive, competitive marketing of software. Though the workshops concentrated on the other aspects of a system, all of which are more important for local implementation than the delivery system, one software vendor voiced suspicions of favoritism to "CIS," the computer delivery program developed and used in Oregon. Concern about this matter was anticipated from the outset, so workshop sites were chosen by federal agency staff and sponsors were given freedom to choose the delivery systems that would be demonstrated at their workshops, while workshop material was carefully designed to explain the options available to states.

In some of the workshops participants were asked in their evaluations whether the presenters seemed to be marketing the CIS delivery system; they uniformly said no. Moreover, only two of the five workshop states that were ultimately funded by NOICC chose the CIS delivery system. On the other hand some local workshop sponsors complained that CIS staff seemed reluctant to explain the merits of the CIS program during follow-up visits when salespeople for other systems were marketing aggressively.

In retrospect, it seems that the workshop program was both fundamental and flexible enough to be valuable to local people even when federal support was in flux. Changes in federal funding proved to have surprisingly little influence on the workshop project's success. Likewise, the information, service, and organizational aspects of state-based systems are sufficiently important and the workshop presenters were sufficiently impartial that the

by-play over "vendorism" proved to be mostly an additional burden to project staff rather than a significant influence on the workshops themselves.

Turning to the workshop program itself, there are several elements that jointly contributed to the program's success. These included the workshop materials, the presenters, the developmental evaluation strategy, the follow-up, and local leadership.

Workshop Materials

One of the weak points of previous efforts to explain systems for career information has been the shortage of good materials developed specifically to introduce state-based systems. Developing such materials requires time and resources that have not been available previously but which were provided under this grant. The materials were expected to synthesize the experiences of the several states that have implemented systems, to improve workshop instruction, and to provide a basis for continued action by local people following the workshops. As it happens, the materials also made it possible to conduct several workshops beyond those supported by the grant.

The workshop materials have been described earlier in this report. The point here is that the materials were an essential ingredient in the success of the workshops. The workshop materials permitted presenters who were very knowedgeable about the working of a career information system but inexperienced as workshop presenters to share their knowledge in a structured manner and to reinforce their presentations with teaching aids. The materials also enhanced quality control by assuring that all pertinent facts would be covered in every workshop, regardless of who presented it. They also constituted a resource that local individuals and groups could use independently.

As evidenced in the workshop evaluation, participants as well as presenters thought the materials were useful. In response to the statement, "The learning aids assisted me in comprehending the content of the workshop," 90% of the participants who filled out evaluation forms gave a positive response, 7% a neutral response, and only 2% a negative response.

Workshop Presenters

The organizational and communications abilities of presenters are key to the success of any workshop. For workshops on career information systems, technical knowledge is also essential. Thus it was necessary to be concerned about both process and content. For this series, two presenters were used for each workshop. Each presenter was technically expert in at least one of the four aspects of the operation of a career information system. Many of them were not experienced instructors but had good basic communications skills. The well-documented guides and effective instructional materials enabled these personnel to perform effectively in workshop settings.

The workshop evaluations provided a means of evaluating the success of this approach to staffing the workshops. Table 5 is a summary of workshop participants' evaluations of presenters.

TABLE 5

EVALUATION OF PRESENTERS

Evaluation Statement	Positive	Neutral	Negative
"The presenters respected my point of view and my feelings."	92%	7%	1%
"The presenters were enthusiastic about the subject."	91%	8%	1%
"I received satisfactory answers to my questions."	86%	12%	2%

The evaluation form for the final workshop had an additional evaluation statement: "The presenters were knowledgeable about the subject." This statement received a positive response of 100%.

Comments from site coordinators and from the presenters themselves indicate that the technical knowledge and the communications skills of the presenters were appropriately mixed and supported by the agenda and materials.

Evaluation Strategy

The method of evaluation which FIPSE encourages and the workshop organizers implemented was both formative and summative, but most of all it provided feedback after each workshop that was useful in refining subsequent workshops.

The six objectives and other relevant aspects of the workshops were used to devise sixteen forced-choice items for an evaluation form. Four open-ended questions allowed participants to comment on the strongest and weakest aspects of the workshop, and to offer their advice to the presenters and the Steering Committee.

After each workshop, the evaluations were tabulated, the open-ended comments were transcribed with information about the participant's occupation and employment sites, and the presenters' critiques were reviewed.

Summary results of those evaluation items are incorporated in this report. However, their greatest value to the workshops was in identifying points at which the program could be strengthened.

This feedback proved valuable in improving subsequent workshops. The evaluative process led to changes in the agenda, materials, visual aids, and depth of information which contributed to the higher ratings which the later workshops received from participants. The last workshop received the highest ratings of all.

Follow-up

Even after the two-day workshop, the initiators of a state-based system have much to learn and many decisions to make. Fortunately, there is experience, both successful and unsuccessful, upon which to draw. As was discussed above, the workshop program included follow-up assistance from someone experienced in the operation of a career information system.

This follow-up assistance was essential to the growth and action of the new leadership in a new state.

Obviously the consultant must be knowledgeable of all aspects of a career information system and of approaches used throughout the country, but nothing is more important than first-hand experience in some aspect of system operation. Psychologically, the consultant must be someone who is challenged and stimulated by the opportunity to help another state develop

a strong and independent program. The other essential characteristic of a successful follow-up consultant is availability. The person must have the time to discuss local problems and options and to help find answers to questions. Correspondingly, he or she must have telephone and travel budgets that enable a person to be responsive. The FIPSE-NOICC grant provided these essential resources.

Local Leadership

In the final analysis, a career information system is a state and local operation. Experts can conduct workshops and federal agencies can give start-up grants, but it takes local leadership to utilize the knowedge and financial resources in a way that produces an effective system.

Throughout most of 1979 when the workshops were being conducted, there was no nominal leader in states (that is, nobody was designated to organized such services), and there was no probable federal funding source for state-based career information systems. Thus this workshop program was designed to draw out the natural leadership from among local user institutions and state administrative agencies, and to provide a decision-making and action-taking structure in the form of a steering committee.

With regard to identifying local leaders among the staffs of schools, colleges, CETA Prime Sponsors and other potential users of the system, the workshops were highly successful. Some of the most active and creative members of the steering committees are people who would not have been identified by virtue of their positions, but who showed professional interest and personal commitment at the workshop.

In several cases, the workshop was catalytic, bringing together the state's leadership for the first time and focusing it sufficiently on the developmental tasks and potential benefits of a system to bring about concerted action. To quote one site coordinator:

> The workshop served as a needed catalyst to move this state toward statewide career information delivery. By demonstrating a work system to various agencies within the state involved with career information, the workshop allowed a common base of understanding to develop for planning a delivery system. In that the workshop raised more questions than it answered, it created a climate of enthusiasm and willingness to pursue career information system planning. Therefore, the workshop indeed fulfilled its goals in the eyes of the SOICC.

One of the recurring patterns is the key role played by the site coordinator. Remember that each workshop state was to designate a person to act a workshop host. Basically that role was to arrange facilities, to mail invitations, and generally to handle local arrangements.

As it happened, many of these site coordinators were real leaders in career information and guidance in their states. This was fortunate, because in every state the site coordinator went on to be elected chair of the steering committee. This new role carried a substantially expanded responsibility for leadership and required much more time and political acumen than hosting the workshop.

Summary

Several factors influenced the success of the workshop program. Crucial ingredients in the workshops themselves were the interest of participants and the knowledgeable presenters who were backed up by excellent workshop materials. Prior experience with similar technical assistance and a developmental evaluation strategy made it possible to incorporate substantial technical and organizational materials into a day-and-a-half workshop that was well received by participants.

The resources of FIPSE and NOICC were important to the development of the workshop, but they were even more crucial to the developments that followed. The workshops encouraged local leaders to emerge, and the follow-up technical assistance enabled them to obtain the guidance and assistance they needed to take positive action toward implementing systems in their states.

The workshop program succeeded in fostering these results despite local differences among states and a rather volatile national scene.

APPENDIX

CAREER INFORMATION WORKSHOP
EVALUATION FORM

State: _____ Occupation (circle one): Counselor Instructor
Administrator Other _____

Employer (circle one): Secondary school Community College 4-year College
Social Agency Other _____

Circle the response that best describes your opinion about each of the statements below. If you still have questions or can suggest improvements in the workshop, please write them after the appropriate item.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The workshop provided me with an understanding of the components of a career information system.	5	4	3	2	1
2.	The workshop allowed me a useful experience with both manual and computer systems for the delivery of career information.	5	4	3	2	1
3.	The workshop demonstrated the application of a career information system in counseling settings.	5	4	3	2	1
4.	The workshop demonstrated the application of a career information system in instructional settings.	5	4	3	2	1
5.	I now understand the organization and staffing requirements for implementing a career information system.	5	4	3	2	1
6.	I now understand the financial requirements for a career information system.	5	4	3	2	1
7.	I now understand the role of the Steering Committee or Board in implementing a career information system.	5	4	3	2	1
8.	I learned most of the things I want to learn. (If not, what was missing?)	5	4	3	2	1
9.	The objectives were clear and the workshop was well organized.	5	4	3	2	1
10.	The workshop treated delivery systems fairly; it was not trying to sell the CIS computer program to the exclusion of others.	5	4	3	2	1
11.	The learning aids assisted me in comprehending the content of the workshop.	5	4	3	2	1
12.	I received satisfactory answers to my questions.	5	4	3	2	1
13.	The presenters respected my point of view and my feelings.	5	4	3	2	1
14.	The presenters were enthusiastic about the subject.	5	4	3	2	1
15.	The presenters were knowledgeable about the subject.	5	4	3	2	1
16.	I would support the establishment of a statewide career information system for my state.	5	4	3	2	1

Please identify the most positive aspects of the workshop.

Please identify the weakest aspects of the workshop.

Please state anything you would like to tell the presenters.

Please state anything you would like to tell the Steering Committee.

Optional:

Name _____

Address _____

_____

_____